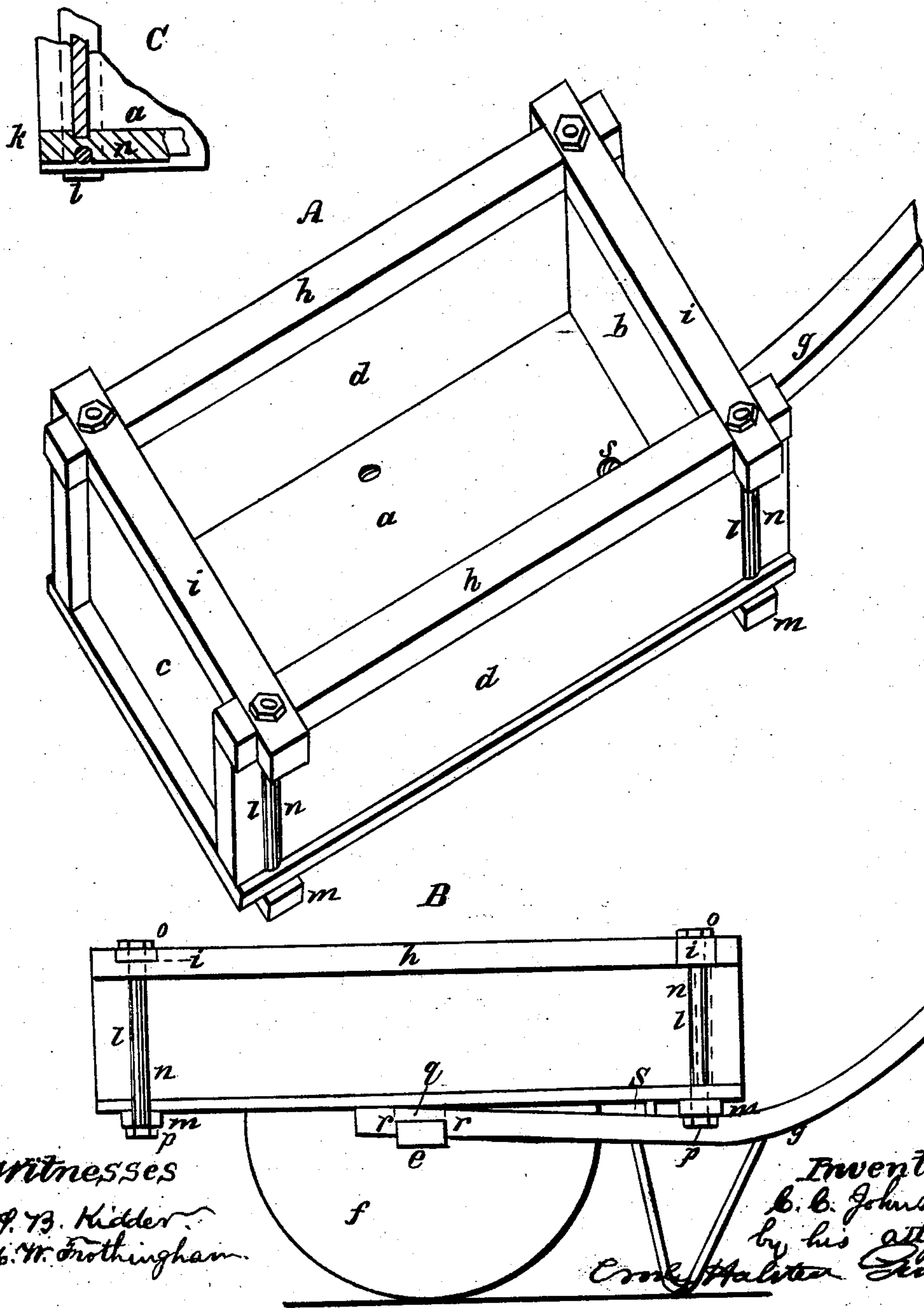


C. C. JOHNSON.  
Dumping Wagon.

No. 93,621.

Patented Aug. 10, 1869.



Witnesses  
J. B. Kidder  
A. W. Frothingham

Inventor  
C. C. Johnson  
by his attys  
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# United States Patent Office.

C. C. JOHNSON, OF SPRINGFIELD, VERMONT.

Letters Patent No. 93,621, dated August 10, 1869.

## IMPROVEMENT IN WAGONS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, C. C. JOHNSON, of Springfield, in the county of Windsor, and the State of Vermont, have invented an Improved Tip-Cart or Wagon; and I do hereby declare that the following, taken in connection with the drawings, which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practise it.

The invention relates to the construction of children's vehicles, such as tip-carts and four-wheeled wagons, with particular reference to the method of so connecting the parts of the body that they are formed into a rigidly framed quadrangular box or body without the employment of nails or wood-screws, the body being capable of dismemberment, or of reorganization very quickly and easily, and without requirement of skill.

The drawing represents a tip-cart embodying the invention.

A shows the wagon-body in perspective.

B is a longitudinal vertical section of the wagon.

C is a horizontal cross-section of one of the corners of the body.

*a* denotes the bottom-board of the body, *b*, the front-board, *c*, the back-board, and *d d*, two side-boards thereof.

The body is supported on an axle, *e*, mounted upon wheels *f*, and is shown as having a pole, *g*; but instead of the pole, a pair of shafts may be attached to the body, and instead of mounting the axle upon two wheels, to form a tip-cart, it may be mounted upon four wheels to form a wagon.

Over the top edges of the side and end-pieces respectively, longitudinal bars, *h h*, and cross-bars, *i i*, are placed, each bar lying directly upon the top of the board beneath it, and the opposite ends of each cross-bar, *i i*, extending over the adjacent ends of the two bars *h h*, the bar *h* having a notch cut half through its upper surface, where the bar *i* crosses it, and the bar *i* having a similar notch cut half through its under surface, so that where the two bars cross each other, they interlock and have their respective upper and lower surfaces flush, making a rigid quadrangular top frame.

Each side-board has, near each end, and on the inner side of it, a vertical groove, *k*, into which the adjacent end of the front or back-board extends; and in the outer surface of each side-board, opposite to each groove *k*, is another vertical groove, *l*.

In vertical line with each groove *l*, a hole is bored through the two top bars *h i*, through the bottom-

board, and through the adjacent end of a bottom bar, *m*, which crosses under the wagon-body; and through the groove and holes thus made, a screw-bolt, *n*, is passed, the head, *o*, of the bolt bearing against the upper surface of the bar *i*, and a nut, *p*, applied to the opposite screw-threaded end of the bolt, bearing against the under surface of the bottom bar *m*, and fastening all the parts tightly together, as will be readily understood, the four pairs of grooves *k l*, the bolts *n*, and the top and bottom bars *h i m*, when all fastened together and to the side, end, and bottom-boards of the wagon, forming a system of connections which renders the wagon-body exceedingly substantial and not liable to be broken, or to work loose at its joints under strain, and it will be readily seen that though the connections are apparently somewhat complicated, they are in reality very simple, as the grooves *k l* and notches are very easily sawed out, and the bolt-holes as easily bored.

The pole *g* is applied as follows:

The axle *e* is notched at its centre by a notch, *q*, of the width of the pole-shank, and the pole is notched with a notch, *r*, as wide as the axle, so that by placing the pole-shank against the bottom-board, and the axle outside of it, (the pole and axle interlocking at the notches,) the pole will be immovably confined to the body, a screw, *s*, being simply used to prevent the pole from swaying.

Thus the whole cart or wagon forms a structure not only very rigid and enduring, but capable of being taken to pieces or put together by a mere child, thus having a double use, giving a child ideas of construction, and affording amusement as a good trundling vehicle.

The parts of the cart are capable of being packed very compactly together for transportation, forming an almost solid mass, and enabling the material of many carts to be packed in a small and easily-handled box.

I claim the wagon or cart, having a quadrangular body composed of side-boards, end-boards, and bottom-board, connected by means of the four pairs of grooves *k l*, top bars *h i*, and bolts *n*, substantially as described.

Also, in combination with the body, the pole *g*, interlocked with the axle *e* by means of a notch in each, substantially as described.

C. C. JOHNSON.

Witnesses:

J. B. CROSBY,  
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